

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1.-6. (Cancelled)

Claim 7. (New) An arrangement for controlling vehicle drive train assemblies having a control device which is arranged remotely from the drive train assembly and which performs the open-loop and closed-loop control algorithms, and a unit which is attached to the drive train assembly, is electrically connected directly to a plurality of sensors, and has an A/D converter for converting analog sensor signals originating from the sensors into digital sensor signals which are then converted into data bus signals by means of a signal converter and fed into a data bus via a data bus transceiver unit for communication via the data bus between the unit and the control device; wherein:

a plurality of control devices are interconnected to one another via a first data bus and are each provided with a uniform data bus transceiver unit to which an assembly data bus is also connected;

the unit comprises an assembly-specific sensor/actuator interface with a plurality of parallel connections for the sensors and a connection for the assembly data bus;

a signal converter is provided for converting the digital sensor signals of a plurality of sensors into the data bus signal, whereby the same control device can be used for different assembly variants with different sensors, without hardware modification of its sensor connection;

the signal converter converts the sensor signals directly into the data bus signals without intermediate connection of a calculating means corresponding to an open-loop/closed-loop control algorithm; and

the sensor/actuator interface accommodates series traffic transmission with a plurality of drive train assembly variants in at least two embodiments which differ in the number of sensor connections provided.

Claim 8. (New) The arrangement as claimed in Claim 7, wherein:

additional actuators can be connected to the sensor/actuator interface;

the control data which are input via the assembly data bus for the actuator or actuators, are converted into digital control data for the individual actuator, so that the actuators can be actuated via the assigned sensor/actuator connections.

Claim 9. (New) The arrangement as claimed in Claim 7, wherein the sensor/actuator interface checks the sensor signals relative to a predefined value range, or a standardization of the signals relative to a predefined numerical range.

Claim 10. (New) The arrangement as claimed in Claim 8, wherein:

the sensor/actuator interface has storage means for buffering digital sensor signals; and

the data bus transceiver unit reads out digital sensor signals from the storage means and converts them into data bus signals.

Claim 11. (New) The arrangement as claimed in Claim 10, wherein a single data bus protocol is provided for use with a plurality of different embodiments of the device having a different number of sensors/actuators compared to the control device.

Claim 12. (New) The arrangement as claimed in Claim 11, wherein a portion of the sensor/actuator connections of the sensor/actuator interface are unassigned.